

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (canceled)
2. (canceled)
3. (canceled)
4. (canceled)
5. (canceled)
6. (currently amended): A modified asphalt composition according to ~~Claim 5~~
Claim 15 wherein the amount of said elastomer and said plastomer is sufficient to increase the PG rating of the modified asphalt composition by +1 to +3 grades.
7. (currently amended): A modified asphalt composition according to ~~Claim 5~~
Claim 15 wherein said plastomer is present in said modified asphalt composition in an amount from about 0.1% by weight to about 10% by weight based on the weight of the modified asphalt composition.
8. (currently amended): A modified asphalt composition according to ~~Claim 5~~
Claim 15 wherein said elastomer is present in said modified asphalt composition in an amount from about 0.1% by weight to about 10% by weight based on the weight of the modified asphalt composition.
9. (currently amended): A modified asphalt composition according to ~~Claim 5~~
Claim 15 wherein said asphalt has a PEN value from about 40 to about 300 dmm.
10. (currently amended): A modified asphalt composition according to ~~Claim 5~~
Claim 15 wherein said asphalt has an AC value from about 2.5 to about 40 hundreds of poises.
11. (currently amended): A modified asphalt composition according to ~~Claim 5~~

Claim 15 wherein said asphalt has an AR value from about 1,000 to about 16,000 poises.

12. (canceled)

13. (canceled)

14. (canceled)

15. (currently amended): A modified asphalt composition ~~according to Claim 14~~ produced by the process comprising:

1) contacting at least one plastomer and at least one elastomer to produce a pellet; and

2) adding said pellet to asphalt in a mixing zone to produce said modified asphalt composition,

wherein said plastomer is oxidized polyethylene.

16. (currently amended): A modified asphalt composition according to ~~Claim 5~~ Claim 15 wherein said oxidized polyethylene plastomer has at least one property in the following ranges: an acid number from about 0.1 to about 50, a needle penetration hardness less than about 50 dmm at 25°C, and a viscosity from about 1 to about 100,000 cP at 135°C.

17. (currently amended): A modified asphalt composition according to ~~Claim 5~~ Claim 15 wherein said ~~plastomer is an~~ oxidized polyethylene is a homopolymer having at least one of the following properties: a density from about 0.92 to about 1.1 g/cm³, a hardness less than about 1.5 dmm at 25°C, an acid number from about 5 to about 41, and a viscosity from about 800 to about 8,000 cP at 125°C.

18. (currently amended): A modified asphalt composition according to ~~Claim 5~~ Claim 15 wherein said elastomer is a synthetic rubber produced from monomers obtained from the cracking and refining of petroleum.

19. (previously presented): A modified asphalt composition according to Claim 18 wherein said monomers are selected from the group consisting of styrene, butadiene, carboxylated butadiene, isobutylene, isoprene, carboxylated isoprene, chloroprene, ethylene, propylene, acrylonitrile, and mixtures thereof.

20. (currently amended): A modified asphalt composition according to ~~Claim 5~~ Claim 15 wherein said elastomer is a block copolymer of at least one conjugated diene and at least one monoalkenyl aromatic hydrocarbon.
21. (previously presented): A modified asphalt composition according to Claim 20 wherein said conjugated diene is at least one selected from the group consisting of butadiene, isoprene, chloroprene, carboxylated butadiene, and carboxylated isoprene.
22. (previously presented): A modified asphalt composition according to Claim 21 wherein said conjugated diene is butadiene and isoprene.
23. (previously presented): A modified asphalt composition according to Claim 20 wherein said monoalkenyl aromatic hydrocarbon is styrene.
24. (previously presented): A modified asphalt composition according to Claim 20 wherein said block copolymer has a general formula A-B-A or (A-B)_n X; wherein each A block is a monoalkenyl aromatic hydrocarbon polymer block, each B block is a conjugated diolefin polymer block, X is a coupling agent and n is an integer from 2 to about 30.
25. (previously presented): A modified asphalt composition according to Claim 20 wherein the configuration of said block copolymer is linear, radial, star, or tapered.
26. (previously presented): A modified asphalt composition according to Claim 20 wherein said block copolymer has a number average molecular weight from about 30,000 to about 300,000.
27. (previously presented): A modified asphalt composition according to Claim 24 wherein said conjugated diene is butadiene and said monoalkenyl aromatic hydrocarbon is styrene and the amount of styrene repeating units in said block copolymer ranges from about 15% by weight to about 50% by weight based on the weight of said block copolymer with the remainder being repeating units derived from butadiene.
28. (previously presented): A modified asphalt composition according to Claim 20 wherein said block copolymer is a styrene-butadiene block copolymer having a number average molecular weight ranging from about 50,000 to about 200,000.

29. (currently amended): A hot mix asphalt composition comprising said modified asphalt composition of ~~Claim 5~~ Claim 15 and aggregate.

30. (canceled)

31. (canceled)

32. (canceled)

33. (canceled)

34. (canceled)

35. (canceled)

36. (canceled)

37. (currently amended): An article produced by the modified asphalt composition of ~~Claim 5~~ Claim 15.

38. (previously presented): An article produced by the hot mix asphalt composition of Claim 29.

39. (new): A modified asphalt composition comprising: at least one plastomer, at least one elastomer, and asphalt, wherein said plastomer is oxidized polyethylene and wherein said elastomer is a block copolymer of at least one conjugated diene and at least one monoalkenyl aromatic hydrocarbon.

40. (new): A process for producing the modified asphalt composition of claim 39 comprising:

1) contacting at least one plastomer and at least one elastomer to produce a pellet; and

2) adding said pellet to asphalt in a mixing zone to produce said modified asphalt composition.

41. (new): A modified asphalt composition according to Claim 39 wherein said conjugated diene is at least one selected from the group consisting of butadiene, isoprene, chloroprene, carboxylated butadiene, and carboxylated isoprene.

42. (new): A modified asphalt composition according to Claim 41 wherein said conjugated diene is butadiene and isoprene.

43. (new): A modified asphalt composition according to Claim 39 wherein said monoalkyenyyl aromatic hydrocarbon is styrene.
44. (new): A modified asphalt composition according to Claim 39 wherein said block copolymer has a general formula A-B-A or (A-B)_n X; wherein each A block is a monoalkyenyyl aromatic hydrocarbon polymer block, each B block is a conjugated diolefin polymer block, X is a coupling agent and n is an integer from 2 to about 30.
45. (new): A modified asphalt composition according to Claim 39 wherein the configuration of said block copolymer is linear, radial, star, or tapered.
46. (new): A modified asphalt composition according to Claim 39 wherein said block copolymer has a number average molecular weight from about 30,000 to about 300,000.
47. (new): A modified asphalt composition according to Claim 44 wherein said conjugated diene is butadiene and said monoalkyenyyl aromatic hydrocarbon is styrene and the amount of styrene repeating units in said block copolymer ranges from about 15% by weight to about 50% by weight based on the weight of said block copolymer with the remainder being repeating units derived from butadiene.
48. (new): A modified asphalt composition according to Claim 39 wherein said block copolymer is a styrene-butadiene block copolymer having a number average molecular weight ranging from about 50,000 to about 200,000.